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PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



In re: Hanley-Bowdoin et al.

Serial No.: 09/289,346

Filed: 09 April 1999

For: *GEMINIVIRUS RESISTANT TRANSGENIC PLANTS*

Group Art Unit: 1638

Examiner: G. Helmer

July 15, 2002

Commissioner for Patents
Washington, DC 20231

RESPONSE TO OFFICIAL ACTION

Sir:

This is in response to the Office Action of January 15, 2002.

In the Specification:

Please delete the three paragraphs beginning on page 8 line 29 that run through page 9 line 16.

Please replace the three paragraphs beginning on page 36 line 29 and ending on page 37, line 20 with the following single paragraph:

B'

Earlier studies have shown that TGMV AL1 and Rb interact with each other, but the region of the AL1 protein that mediates interaction was not known. The limits of the Rb binding domain were defined by the present inventors using a baculovirus expression system. Insect cells were co-infected with recombinant baculoviruses corresponding to various AL1 truncations and to a GST fusion with amino acids 214-866 of Maize Rb (GST-mRb). The abilities of the different AL1 truncation to bind GST-mRb were assessed by cofractionation on glutathione-sepharose resin. Total extracts and purified proteins were resolved by SDS-PAGE, and AL1 and GST-mRb were visualized by immunoblotting with AL1 and GST antibodies, respectively. The C-terminal truncation AL1(1-180) copurified with GST-mRb. Further deletion to amino acids 168 and 158 abolished interactions with GST-mRb.